



STOP AQUATIC HITCHHIKERS!

www.ProtectYourWaters.net

Follow these simple steps:

✓ Clean

Remove all plants, animals and mud then thoroughly wash everything, including all crevices and other hidden areas on your boat and equipment.

✓ Drain

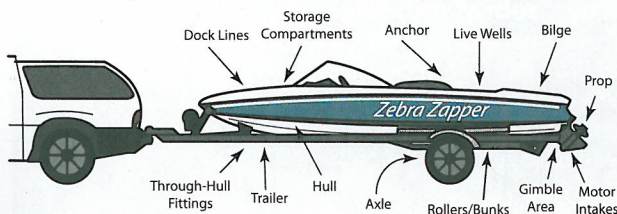
Eliminate all water before leaving the area, including wells, ballast, and engine cooling water.

✓ Dry

Allow time for your boat to completely dry before launching in other waters.

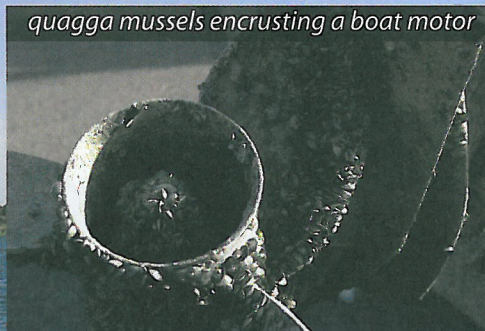
If your boat has been in infested waters and you cannot perform the above steps, you should have your boat **professionally** cleaned with high-pressure scalding water (>140° F) before travelling to any other body of water.

Before leaving and before launching...
inspect everything!



zebra mussels encrusting a fishing rod

Zebra and quagga mussels are invasive freshwater mollusks (clams) that infest waters in large numbers, attaching to any hard surface.



quagga mussels encrusting a boat motor

Zebra and quagga mussels are a costly nuisance for anglers and boaters. They can ruin your equipment, clog cooling systems in motorboats, foul hulls and jam the centerboard wells under sailboats.

In Texas report
zebra/quagga mussel sightings to

Operation Game Thief
1-800-792-4263



100th Meridian Initiative

Image Credits: Zebra Mussels Encrusting a Fishing Rod and Zebra Mussels on a Fishing Line by Marc Murrell, Kansas Department of Wildlife and Parks • Zebra Mussels, Zebra Mussels on a Boat Cam, Zebra Mussels on a Native Mussel, Bait Bucket, Quagga Mussels, Inspect Everything! and Zebra Mussel Distribution Map: February 2008 by David Britton, U.S. Fish & Wildlife Service • Zebra Mussels in a Cut-Away Pipe by Don Schlosser, Great Lakes Science Center • Zebra Mussels in a Pipe by Craig Czarniecki, Michigan Sea Grant • Quagga Mussels Encrusting a Boat Motor by Matt Watson, The University of Texas at Arlington. The distribution map is based on data compiled by the U.S. Geological Survey's Nonindigenous Aquatic Species Program (<http://nas.er.usgs.gov>).

100th Meridian Initiative

ZAP THE ZEBRA

www.100thMeridian.org

Please report any sightings by
calling our National Hotline:

1-877-STOP-ANS

1-877-786-7267

quagga mussels

1 Inch

zebra mussels

1 Inch

Invasive Mussels: Expensive Damage

When zebra or quagga mussels invade our local waters, they clog power-plant and public-water intakes and pipes. Routine treatment is necessary and very expensive: this leads to increased utility bills. If you use water and electricity, then you do not want zebra/quagga mussels!

zebra mussels in a cut-away pipe



zebra mussels blocking a pipe



Zebra/Quagga Mussels May Use Your Boat to Invade Additional Waters

If your boat has been in infested waters, it could be carrying invasive mussels. These creatures usually spread to new habitats on boats trailered by the public or by commercial haulers. Zebra and quagga mussels attach to almost anything: boats, aquatic plants, bait buckets, and other aquatic recreational equipment. You could unintentionally transport microscopic mussel larvae in water in your live well or bilge. An adult female zebra mussel can release up to 1,000,000 eggs in a lifetime. Please take the precautions outlined in this brochure to reduce the chance that zebra or quagga mussels will spread to uninfested areas.



before zebra mussels

after zebra mussels

Zebra/Quagga Mussels Harm Native Aquatic Life



zebra mussels on a crayfish

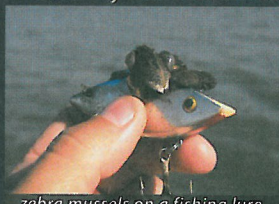


zebra mussels on a native mussel

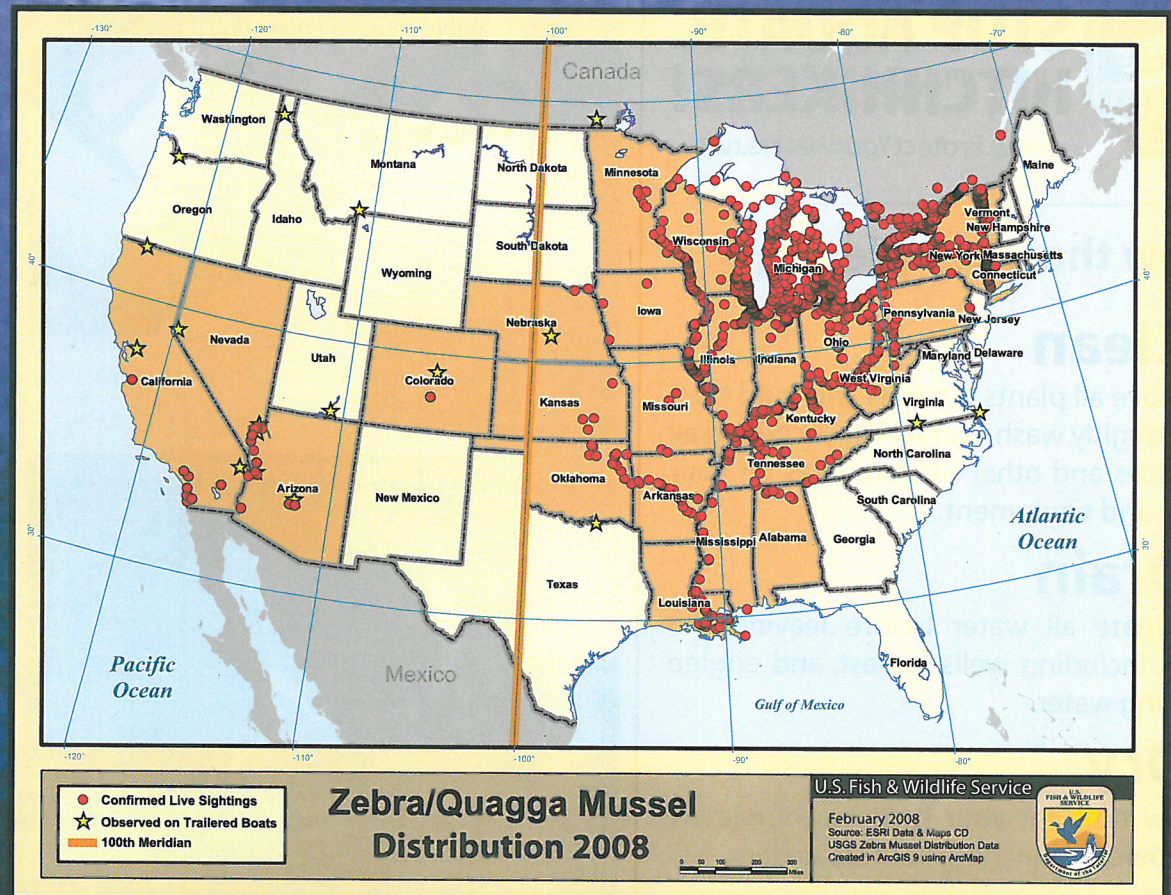
Zebra/Quagga Mussels Encrust Any Hard Surface



zebra mussels on a beer can



zebra mussels on a fishing lure



What are they

Zebra and quagga mussels are invasive freshwater mollusks (clams) that infest waters in large numbers, attaching to any hard surface.

Where do they come from?

Black and Caspian Sea drainages in Eurasia.

What size are they?

From microscopic up to about two inches long—usually found in clusters.

Why “zebra” mussels?

These species are both sometimes referred to as “zebra” mussels because they have light and dark alternating stripes. Quagga mussels are actually a separate (but similar) species named after an animal related to zebras.